

Operations Modeling Protocols
Engineering and Operations Work Group
Oroville Facilities Relicensing (FERC Project No. 2100)

The Department of Water Resources' Oroville Facilities Relicensing Study Plan SP-E2 outlines the process for cooperatively developing model run requests. DWR staff and its consultants will work in conjunction to ensure model run results meet Federal Energy Regulatory Commission requirements for preparing and filing a complete, satisfactory, and successful license application by January 31, 2005. To facilitate implementation of Study Plan SP-E2, this protocol establishes (1) a modeling coordinator and (2) a process for developing modeling analyses.

Modeling Coordinator: All model runs will be directed, managed, and performed under the direction of DWR's Modeling Coordinator. The Modeling Coordinator's main objective is to coordinate modeling analyses requests to ensure an efficient modeling process exists to obtain information to complete the studies. The Modeling Coordinator will direct the modeling tasks that are performed by the Department's Modeling Team. This team is comprised of Department staff and consultants.

The Modeling Coordinator will oversee and direct the following activities:

- Establish a modeling group comprised of DWR staff and consultants
- Develop criteria for model runs
- Prioritize model runs
- Coordinate across studies for consistency
- Assure efficiency
- Define format and presentation of model run output for Work Group studies
- Provide regular status report to RAMS and Plenary Group

Modeling Analyses Process: The Modeling Coordinator will work with resource Work Groups and the Plenary Group to develop and implement appropriate modeling analyses. The steps include:

1. Request Model Runs: In order to manage and track modeling activities, resource Work Group model run requests will be transmitted to the Modeling Coordinator via the appropriate relicensing Resource Area Manager (RAM). Requests from the Plenary Group will be transmitted through the relicensing Program Manager.
2. Define a Modeling Plan: The Modeling Coordinator (and appropriate Modeling Team staff) will work with Work Group participants and the corresponding RAM to determine the information and analyses required to complete their studies (i.e., reservoir levels, temperature data, flow data, etc). The Modeling Coordinator will work cooperatively with each RAM and Work Group to develop a set of model runs that meet the needs of the approved Study Plans. The objective of this collaboration

is to aggregate requests when appropriate to maximize the usefulness of each model run and to ensure the modeling will be consistent among data results and analyses. The Modeling Coordinator will identify and address circumstances that challenge¹ the resources available for conducting modeling analyses. The result of this task will be a written plan that includes:

- Purpose of the modeling analyses being requested and the information desired.
 - Information that will be produced by the modeling analyses and the limitations on use of the information. Due to the high degree of coordination with Study Plan authors, the information produced should be the same as information desired. There may be cases when this is not possible. In those cases, documentation will be provided to explain why the information provided will not be the same as the information desired.
 - Models to be used for the analyses, as well as how those models interact.
 - Assumptions used for each model and model run.
3. Approve and Prioritize Modeling Plans: Approval of modeling plans will consider the efficient use of available resources, the need for the modeling analyses, and the relationship to relicensing. As part of the model plan development process, the Modeling Coordinator will prioritize the approved set of model runs. A regular modeling status report will be provided to the RAMs and at scheduled Plenary Group meetings.
4. Conflict Resolution: Development of the modeling plans is a collaborative activity that includes the Modeling Coordinator, Modeling Team staff, RAMs, Study Plan authors and Work Group participants. Few if any conflicts regarding the need for specific model runs or the priority placed on the model runs are expected. However, if a conflict is identified and cannot be resolved between the Modeling Coordinator and the RAMs, the issue will be resolved in accordance with Section IV of the Process Protocols, dated May 1, 2001. Concurrent with any issue resolution matters, DWR will present its approach for keeping the relicensing process on schedule while the issue is being resolved.

¹ Such challenges would include circumstances when requests for modeling analyses exceed the capability of available resources.